



Precision by Tradition

THE SEE SUITE

Digital transformation is a journey, not a destination. Fractal brings clarity to action, to help drive successful change and the vision to guide executive management to create the right strategies.

by fractal

The See Suite

Creating risk-averse road maps for meaningful sustainability impact.

Rise and still shine

Dr. Ram Charan provides innovative leadership insights on rising inflation.

Two seconds. Too long

How the brain processing visual content impacts customer behavior.

Speaking for itself

Fractal's human-first speech technology brings harmony to India's government services.

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EDITOR'S NOTE

Shifting strategy

The main strategic priority for board directors in 2022, even amid growing challenges like workforce availability and environmental and social governance, continues to be digital transformation.

It's easy to see why. As technologies relating to big data and artificial intelligence continue to evolve, digital solutions are being deployed that can completely overhaul the economics of a business, whether by delivering great new customer experiences, facilitating massive cost savings, or unlocking insights into customer behavior that can determine new strategies.

Daily, Fractal is helping customers to yield such benefits. In India, for example, the government's UMANG app provides citizens with a single point of access to over 1,200 government services. Using natural language processing, these services are now available via an AI virtual assistant in 10 of India's most widely spoken languages, leading to a massive increase in adoption and a dramatic easing of the service burden on government workers. You can read about that project in this issue of *ai:sight*.

But the wealth of opportunity available from new technology can present difficulties for those who run large organizations. As Mark C. Thompson, a world-leading CEO coach, says: "One of the greatest challenges for leaders in any industry is engaging their people to drive change rather than be run over by it."

Board directors need to develop a detailed understanding of digital transformation, how that might best apply to their industry and business, and how to provoke the right conversations among their executives to drive effective change, growth, and value creation.

Fractal's digital board program has been designed to achieve exactly that. Customized according to directors' priorities and availability and the topics – from data mining to the metaverse – that are of most direct relevance to their business, this innovative new initiative will enable leaders to shift their strategies onto a path for success. Turn to page 3 to find out more.

I hope you enjoy the read.



Susmita Roy
Managing Editor

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Digital transformation is a journey, not a destination. Fractal brings clarity to action, to help drive successful change and the vision to guide executive management to create the right strategies.

Over the past few years, we've seen exactly how critical digital transformation and artificial intelligence (AI) are for competitive business. When the pandemic hit, companies like Starbucks, that had invested in digital transformation five years earlier, could immediately jump to a no-contact, no-waiting sales model that ensured business continuity alongside the safety of workers and customers. Others, including McDonald's and Burger King, moved quickly to emulate that success with similar strategies. However, without the digital maturity of Starbucks, they are still playing catch-up.

So, what prompted Starbucks to embark on digital transformation so early on? It perhaps didn't foresee a pandemic, but it did see disruption, and a need to disrupt its markets, as the rise in online shopping brought changes in consumer



Digital transformation is a journey, not a destination, and boards may need to re-examine goals and directions along the way.

behavior. Its transformation journey has been characterized by customer-centric innovation and preparation to handle rapid changes affecting its industry.

Today, boards of directors in every industry and geography face a similar challenge: envisioning and inspiring their management on how digital transformation can add value for the business and its stakeholders while protecting the organization from risks.

“The board is the one set of people who are expected to lead the company forward or to provoke senior management and help them gauge the company’s position and progress in digital transformation,” said Pranay Agrawal, co-founder and chief executive officer of Fractal. **“However, through our conversations with board members,**



we have found that they often don't feel well equipped to do that."

Since boards are not responsible for planning and execution, they face a unique, two-pronged challenge.

"Successful leadership requires thorough preparation, high standards, and conviction," said Deb Henretta, an executive advisor on digital transformation. **"To maximize their impact on management, boards need to be thoughtful and considerate in their questions and contributions and listen as much as they contribute."**

"When it comes to directing digital transformation, boards often feel they lack two key elements they need to deliver that leadership. First, they require a detailed understanding of

transformation and its relevance to the company and industry they serve. In addition, they need an effective way to communicate that understanding that stimulates the company's management to develop effective strategies. To do that, they must know exactly what they can do – which ideas to suggest, which questions to ask and where there are real-world examples to explore – to provoke productive thought among managers about the areas they need to work on. A board that successfully communicates an informed transformation vision in this way is helping the company to make that journey."

There is no shortage of programs aimed at helping leaders to understand digital transformation. However, they often fall short of the board directors'

unique needs. Many require a time commitment that directors struggle to afford – courses offered by the university and academic institutions require in-person attendance for anything from one day to sixteen days, while even self-paced online courses can require several hours per week over multiple weeks. And for those that can attend, the available programs often don't cover everything that directors need to know.

"Many of the available courses lack the breadth and depth that boards of directors are looking for," said Sagar Shah, client partner, Strategic Center at Fractal. **"Some are very academic, focusing on the principles and tenets of digital transformation. Others use case studies to illustrate the concepts of digital transformation. Still, they don't explain how it was done, how long it took, what type of investment was involved, or exactly which programs brought the company's success."**

So, what do directors want from a digital transformation education program?

Answering, as well as asking challenging questions, is a must. For example, how can digital help a company disrupt its industry, engage meaningfully with customers, or drive social good? How can it help a major bank to generate more leads or a government organization engage with more than a billion citizens in multiple languages? And how might a Fortune 500 company harness AI to increase earnings by more than \$500 million through better revenue and supply chain management?

Ultimately, boards need the tools at their disposal to inspire change that creates value.



Today, boards of directors in every industry and geography face a similar challenge: to envision and inspire their management on how digital transformation can add value for the business and its stakeholders, while protecting the organization from risks.

64% of boards have made efforts to significantly alter the enterprise economic structure to a more digital economic architecture

Source: Gartner, 2022

Nearly half of consumers believe the organization providing or using the AI should be held accountable if AI goes wrong

Source: Gartner

94% of directors said they felt they needed more training on new technology and governance best practices, just 58% reported receiving that training

Source: Harvard Business Review

“One of the greatest challenges for leaders in any industry is engaging their people to drive change rather than be run over by it,” said Mark C. Thompson, a world-leading CEO coach. “Transformation isn’t just about applying technology. It’s about driving change, growth, and a culture of value creation.”

“To provide actionable ideas and insight that provoke a sense of urgency, along with the checks and balances to protect reputation and performance, boards must be able to connect their transformation vision with a spectrum of elements. These include company values and culture, market trends, analyst and customer sentiment, operational knowledge of how other organizations have achieved similar goals, and everything in between. The breadth and depth of knowledge needed might seem overwhelming. Still, a board program focused on helping the company explore its unique challenges should be able to deliver the laser-targeted insights and resources within a day or, for individual issues, hours.”

Fractal’s understanding of the operational insight needed to explore those questions comes from more than 20 years of working with hundreds of Fortune 500 companies to enable such transformations. This deep operational experience, coupled with a core belief in the value of sharing knowledge and learning from others, has created a flexible program that can be configured to board directors’ priorities and time availability. They may want a full-day program covering a range of tough questions in depth, for instance, or a shorter meeting where board members come together to discuss complex topics. Where C-level management grapples with a single hot topic – such as sustainability or ethics – a 90-minute roundtable is often the perfect format.

“Sustainability and ethics are two prime topics that boards are struggling with today because of the changing nature of laws and regulations in the US, UK, Europe, China, and India,” said Shah. “We can also address other topics that are top of mind with directors, such as cyber risk and security, cyber insurance, and governance models across the organization. Metaverse is also gaining interest – for example, if companies follow PNG’s example and hire a chief Metaverse officer reporting to the CEO, those CEOs may want to attend a roundtable where they can learn about the subject.”

This ability to respond to new challenges is crucial. Digital transformation is a journey, not a destination, and boards may need to re-examine goals and directions along the way. A program focusing on directors’ changing requirements may prove essential to deliver long-term value as new challenges and opportunities emerge.

“Our board digital program is one of the many ways we create value for our clients across the life cycle of their transformation journey,” said Pranay. “We build long-term relationships with our clients and help them achieve complex goals using AI, engineering

and design. Bringing that deep expertise to help their boards become more effective is one of the major ways we can create value for them.” ●



Pranay Agrawal
Co-founder and Chief
Executive Officer, Fractal



Deb Henretta
Executive Advisor on
Digital Transformation



Mark C. Thompson
World-leading CEO
coach

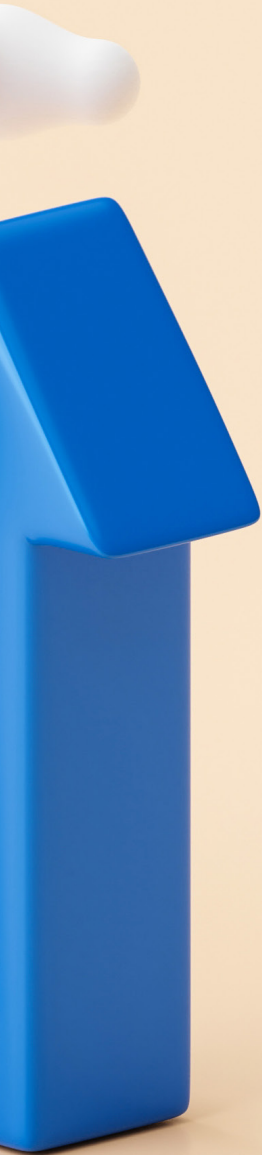


Sagar Shah
Client Partner, Strategic
Center, Fractal

Rise and still shine

**Dr. Ram Charan provides insight,
innovation and imagination to leaders
coming to terms with rising inflation**





Described by *Fortune* magazine as “the most influential consultant alive,” Dr. Ram Charan is a celebrated thought leader and author, with over 40 years’ experience working with leading companies across the globe. We had the privilege of interviewing him to find out what businesses can do to stay ahead in these inflationary times.

Charan learned business basics while working in his family’s shoe shop in a small town in northern India. He earned an engineering degree in his home country, then did MBA and doctorate degrees from Harvard Business School, where he graduated with high distinction and was a Baker Scholar. He served on the faculties of Harvard Business School and Northwestern University before pursuing consulting full-time.

Having worked with companies including Toyota, Bank of America, Novartis, Fast Retailing (Uniqlo), and many more, Charan knows what it takes to run a business well, even in the most adverse of situations. Here he talks about the current period of high inflation and explains what businesses can do to thrive, even in the toughest of circumstances. Adversity is an opportunity to build the future.

What are the biggest challenges that inflation presents to businesses today?

First, I would say that psychology is the most important challenge because once people begin to believe that inflation is here for a period of time, they begin to take action to protect their cash flow. Therefore, the psychology of management teams and the psychology of consumers and regulators are central to prolonging inflation. It is the hardest to tame.

In the US, there’s now a lot of distrust of the Federal Reserve – the main regulator – because they got the inflation timing wrong. They missed the bend in the road and failed to implement a cohesive action plan. That mistrust has only grown now that the stock market is down 20%, and there is no sign of inflation abatement.

All this challenges businesses that must get to grips with the universal underlying principles of inflation – principles that are not theoretical but are common to most inflationary periods. By doing this, they will have the right mindset to not only get through the recession but come out stronger at the end of it.

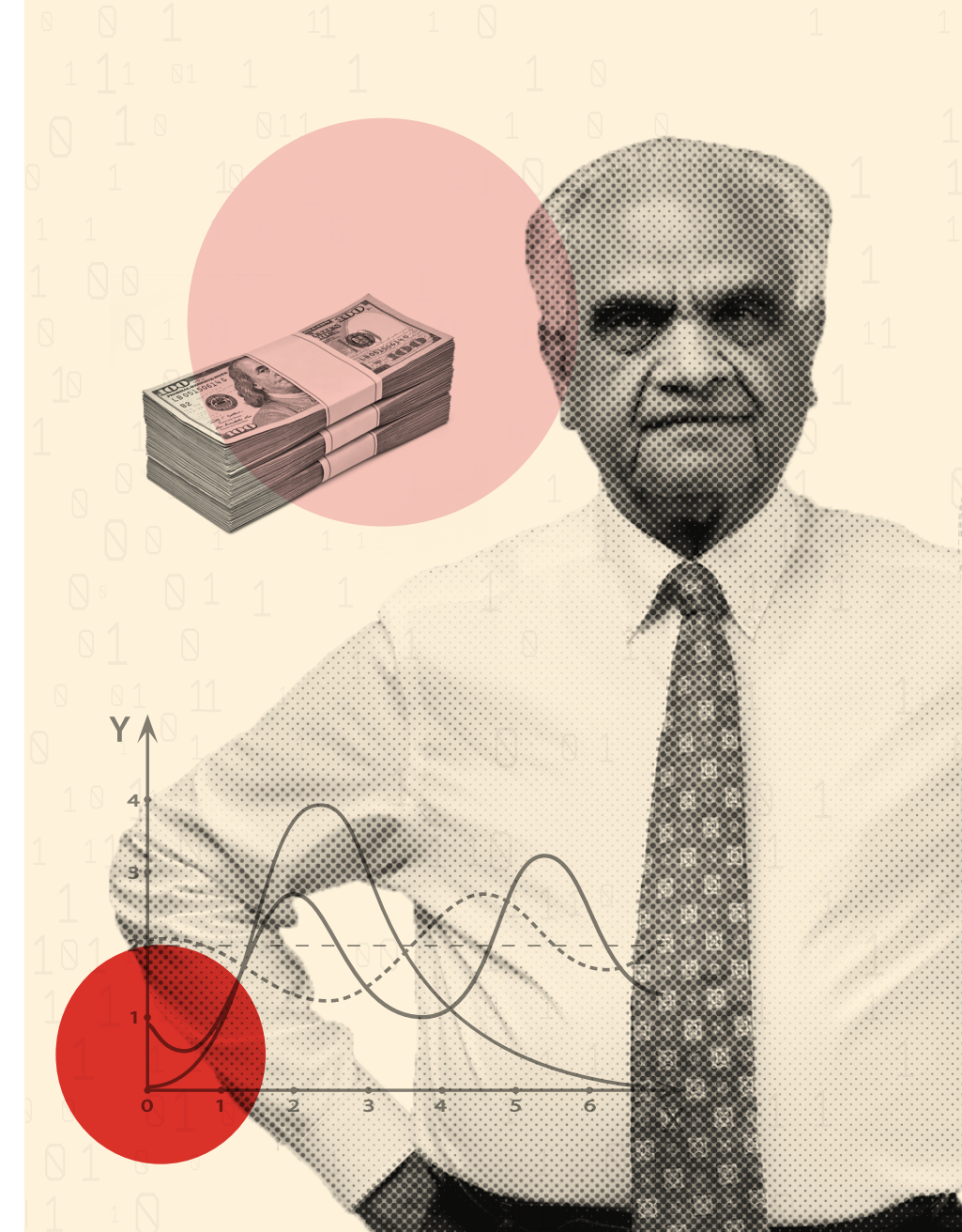
Can you explain these key principles?

I believe there are five key principles that management should master:

Principle #1: Manage your cash

There are no ifs and no buts here. Cash is king. Don't manage for earnings per share or EPS, and don't manage for artificial revenue growth because this will mean you will measure in terms of inflationary dollars, which is misleading.

I firmly believe that, in these times, for the vast majority of businesses, pursuing digitalization is your only choice if you want to succeed.



Companies need to come to terms with this.

Principle #2: You'll need more cash to do the same volume of business

The same volume of business you have been doing will need more cash during times of inflation, so it's important you plan for that by either generating more money, borrowing it, or sharpening your business portfolio of products and customers, which might mean you become smaller.

Principle #3: Eliminate the cash traps in your end-to-end value chain

Going back to the principles of psychology, it's natural for managers to want to preserve cash in their company during times of inflation, so you may find they may pay later than usual or not at

all. Keep a lookout for these cash traps in your entire end-to-end value chain, and make sure your accounts receivable department is on top. The same applies to hoarding inventories.

Principle #4: Don't be scared to raise your prices

Inflation means prices will go up right across the board. Import prices have gone through the roof, and wages are increasing by 12% annually in some sectors. At a time when 70% of your cost is your people, you need to prepare for your costs going upwards of 40% in the next three years. To recoup some of this, your prices must change now. It's difficult, but – even if a competitor slashes prices to gain market share, do not sacrifice your cash. Instead, find a way to differentiate – deliver a better product,



We live increasingly digital lives – in fact, almost 80% of the world's population now buy online. Every transaction we make – and every move we make online – creates data. So today's companies have access to an extraordinary amount of information. Learn to use it correctly, and you can achieve a significant competitive advantage.

What advice would you offer firms at the beginning of their digitalization journey?

First, I want to reassure these businesses that digitalization doesn't have to be expensive, and any costs will undoubtedly be recouped from the benefits. I firmly believe that, in these

in this area who can guide you forward. Great companies are treating such outsourcing companies as long-term partners.

How can companies innovate to stay ahead in an unknown future?

Inculcate the belief that the customer wants continuous innovation and pursue it earnestly. It's never been more imperative. This means truly understanding your customers' needs and tracking how consumer behavior changes. Part of getting this right goes back to my point about implementing technology and analyzing data. Still, it's also essential to get out there and watch your customers in action. Our most innovative companies today travel all over the world to find out what their customers want – and once you know that, you are far better placed to succeed.

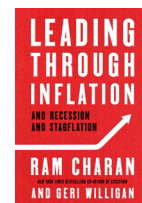
In tough times, the tough get going. In inflationary times, business leaders need untapped skills in a zero-interest-rate environment. What they do now will determine whether their company will prosper or disappear. ●

Once people begin to believe that inflation will roll into recession or stagnation, they begin to take action before it is even a problem.

better delivery, or better customer service, and you will regain your footing. Cash is more important than gaining market share by price cutting when your costs are increasing. Fear not the competitor unless it has better productivity or an unusual cash hoard.

Principle #5: Make better use of customer data

times, for most businesses, pursuing digitalization is your only choice if you want to succeed. Now, it doesn't need to be scary – and you do not need to do it alone. Companies like Fractal are very well-equipped to help you on your journey and to uncomplicate the tools you can use to analyze customer data more effectively. So, if I had one real bit of advice, it would be to seek an expert



Ram Charan's latest book 'Leading Through Inflation' is available now. Scan the code and grab your copy today.

Two seconds.
Too long



Understanding how the brain processes visual content in under two seconds can be the difference between a customer purchase or rejection.

Digital marketing is increasingly sophisticated, targeted, and optimized – and yet, the Click-Through Rates (CTRs) that measure its success are abysmally low. One data set drawn from Google's ad network shows that the average CTR of a display advertisement plummeted from 44% in 1994 to just 0.46% in 2018 – an almost 100-times reduction. Factor in the percentage of people who click through but abandon the item in their shopping cart, and the success rate is even lower.

Click-through rate (CTR) for digital banner ads

CTR 1994: 44%

CTR 2018: 0.46%
- 100 x

Fractal's CerebrAI team set out to study the final seconds of decision-making. We found CTRs and cart abandonment a significant use case in this process. We started with two key questions:

- In the age of fragmented attention, how much time do we have for digital communication to achieve that impact?
- Can we improve the visual communication – the product tile, display page, or advertisement – so it drives immediate action?

For decades, the 30-second television commercial has set the standard for the ideal advert duration. But today, on average, users spend more than three hours a day on their smartphones, during which they tap, swipe, and click their screens more than 2,600 times. Since every touch changes the screen, each piece of content spends a mere 4.3 seconds in front of the user.

During that time, the brain goes through several microprocesses. First, it evaluates the image and decides whether to approach or avoid it. Next, it analyzes the image in light of past experiences to decide whether it likes the object, brand, or product shown. Then, suppose the brain associates the product with emotional rewards. In that case, it moves from “liking” to “wanting” it – and ultimately to clicking through. When we looked at how the brain processes visual content for routinely purchased grocery products, it was found that only 0.92 seconds are taken.

So, forget about the 30-second commercial – today, even two seconds is too long. Today, micro-commercials are needed to create that crucial impact in less than a second.

Next, we looked at what organizations can do to ensure their marketing – in this case, a product tile – stimulates those micro-processes.

We drew on research across different



fields, from addiction to the animal kingdom. Among animals, for example, females selecting a mate tend to choose high-ranking males that can protect their offspring – for a brand, this translates to core category need. They also typically select a mate from outside the group to keep the genetic pool diverse – equivalent to the brand fitness indicator that gives a brand a distinct occupancy in the consumer’s mind. And females also favor male “friends” that have groomed them and been kind to their offspring – which translates to past experience with a brand or product and the emotional highs and rewards that trigger consumers to purchase it.

From this research, we identified three key elements to include in the product tile, which loosely correspond with the brain’s decision-making processes:

- Category need ➡ approach
- Brand fitness indicator ➡ liking
- Emotional high ➡ wanting

As we move away from the 30-second commercial, the always-on, always-with-you nature of mobile phones holds huge potential for digital marketing.

Here is how it could work. According to data from Amazon, 69% of people start their product search at the category level – they need a soft drink to quench their thirst, for instance. A simple image of the product coated with water droplets can suggest that the need will be met, encouraging the thirsty customer to approach.

Past experience of using the brand plays a powerful role in whether the consumer likes the product. For instance, their flavor

preferences and values can influence the brand’s place in their mind.

Between “liking” and “wanting,” there is a gap driven by associating the product with emotional highs and rewards. For instance, a product tile showing a group of friends enjoying their soft drinks can communicate an emotional high that encourages purchase. In addition, highlighting the perception that price reduction is a powerful reward and incentivizes purchase.

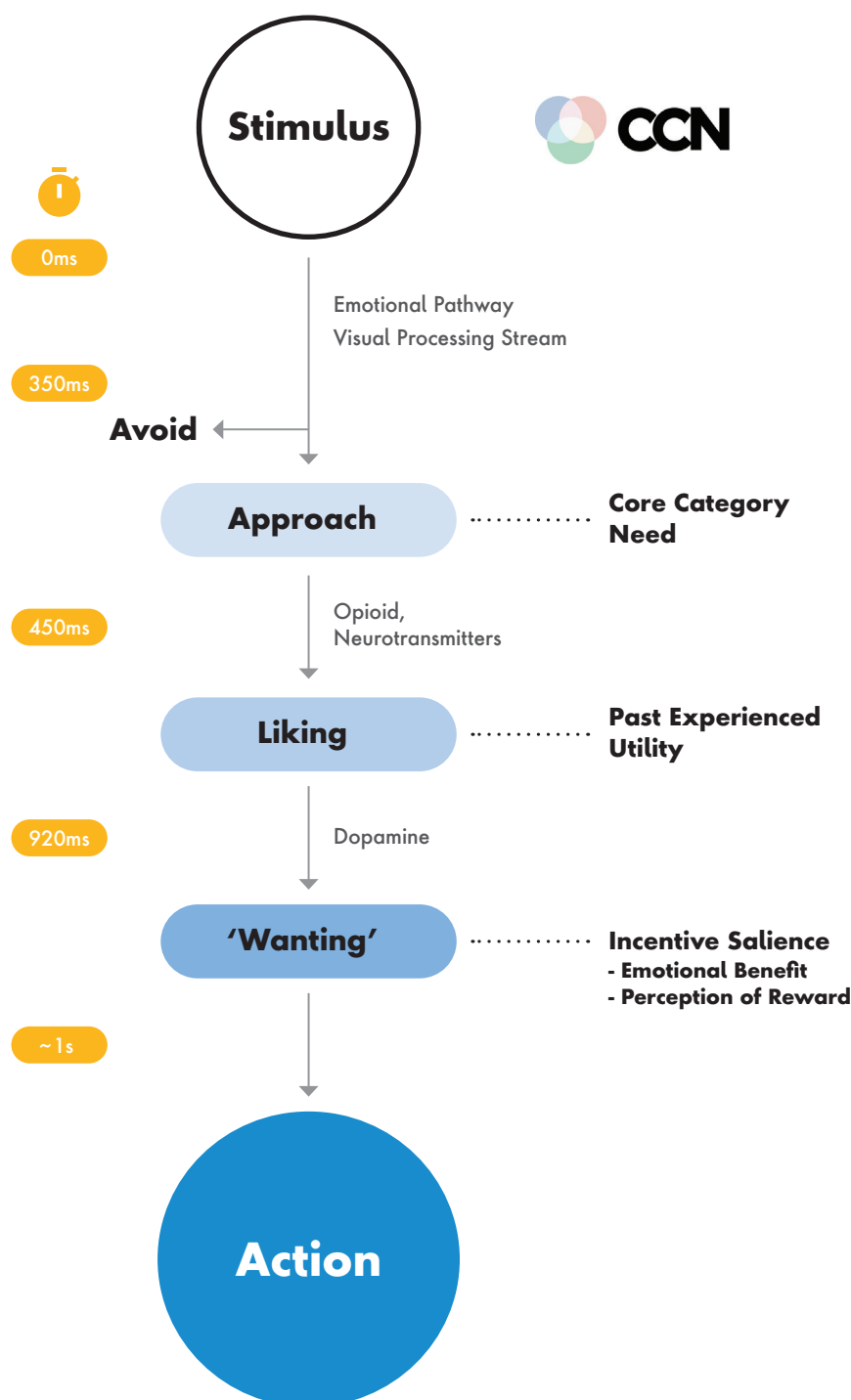


Figure 1: The Final Second Framework

But this is only half the story. Once the customer has added the product to their shopping cart, how do we encourage them to complete the purchase? One way could be changing the product's appearance in the cart to suggest a move from the retail space to the shopper's personal space, thereby playing up the endowment effect.

For our soft drink, this could be done by using a product tile that:

- Shows the soft drink in a refrigerator
- Suggests the sensation of reaching out or holding the drink.

We believe this simple move could reduce cart abandonment by a substantial amount.

This is the beginning of a significant shift in marketing that will see organizations creating micro-commercials that can drive viewers to approach, like, and want their products in less than a second. Our neuroscience research continues, and further investigation will discover how different industries can apply this framework. ●

Read the full paper 'Final Seconds of Decision Making of an E-commerce Transaction' accepted by the Conference on Cognitive Computational Neuroscience 2022, San Francisco (CCN 2022)



Biju Dominic
Chief Evangelist at Fractal

As a chief evangelist of Fractal and chairman of FinalMile Consulting, Biju is playing the new game that is emerging at the intersection of human and machine intelligence. He is driven by the belief that the more we understand the inscrutable algorithm in our brains, the better the technology we develop for our machines will be.



Technology Technology Technology

that speaks for itself

How Fractal is building smart, perceptive, human-first speech technology, in harmony with the rhythm of Indian society.

UMANG (Unified Mobile Application for New-Age Governance) is the app that provides citizens of India with a single point of access to over 1,200 major government services. It covers everything from education, COVID-19 vaccinations, public transport, and employment advice to passport applications, utilities, cybercrime reporting, and more.

UMANG was launched in 2017 and developed by two departments of the Government of India – the Ministry of Electronics and Information Technology (MeitY) and the National e-Governance Division (NeGD) – to drive the country to mobile governance.

However, while the app was well received by those in the population that are technology-literate, it was seen as complex and hard to navigate by those who are not so digitally savvy and for those whose language wasn't supported by the app.

"It is unfortunate that many government programs see lackluster adoption because people at the grassroots level are unable to access them or understand their benefits. This is why Voice AI is a great equalizer. And UMANG is a great example of this, where people can just speak with the AI Conversational Assistant and instantly access information," shared Krishna

Kadiri, Chief Innovation Officer & Co-founder, Senseforth.ai.

The government realized that citizens wouldn't be able to make the most of this incredible service and were struggling to access critical information when they needed it most.

UMANG had to be much more. They wanted to eliminate technology and language barriers and create a more inclusive solution – and that could boost the adoption of key government programs and initiatives in the long term.

To achieve this, the Government of India asked conversational AI firm Senseforth.ai to help it create a voice-enabled interface, so citizens could simply speak their questions into the app and get the desired results.

“India is perhaps one of the most diverse countries in the world, and this is reflected in how we speak. Building a voice-enabled AI Assistant that can handle eight regional languages and scores of dialects is quite challenging,” stated Krishna Kadiri, chief innovation officer & co-founder, Senseforth.ai.

This challenge is made more complex, particularly given the major objective of reaching rural citizens who can be isolated from digital services.

“Governments around the world are going on the digitalization journey, and potentially a huge part of the dreams of people could be left out if they don't access the citizen services that are provided on digital

platforms,” said Shridhar Marri, Co-founder, and chief executive of Senseforth.ai, in an interview with *The Economic Times*.

“Conversational AI is one way to address this by using local language input through voice or text, and then providing the same level of service without having to use a mobile app or go to a website.”

Millions of people interacted with the virtual assistant within the first weeks of its launch

Using its patented Natural Language Processing (NLP) technology and decades of experience building very large and complex conversational AI solutions for businesses like HDFC Bank, Nestle, and Prudential Financial, Senseforth.ai was able to meet the brief.

After a comprehensive knowledge-gathering exercise, which involved determining citizens' preferred channels and the most common languages spoken, Senseforth.ai developed an AI virtual assistant for the top 15 services that citizens used most. This was done with the company's proprietary conversational AI platform, which

handles millions of conversations daily with an accuracy of over 96%. Pre-built and battle-tested AI models for hundreds of use cases are baked into the conversational AI platform, helping ensure a fast implementation.

The pilot launch went live in 2022 in both English and Hindi, with the AI Citizen assistant expected to distinguish between 10 major Indian languages and many more local dialects in the following months. Millions of people interacted with the virtual assistant within the first weeks of its launch, asking over one million questions, either spoken or by text.

However, this is just the start. Senseforth.ai is working closely with government officials to analyze feedback, finetune working on the AI Citizen Assistant, and eventually roll it to many more UMANG services. As a result, citizens in even the most rural areas of India who have traditionally felt disconnected from technology will have access to key government programs and initiatives.

“We will be building a few services in the next few months and eventually cover the entire spectrum of thousands of services,” said Marri, in an interview with *Mint*. **“All of them will be handled by us to create conversational AI services.”**

About Senseforth.ai

A Fractal Alpha company, Senseforth.ai is a premier Conversational AI Platform helping large enterprises transform customer experiences throughout APAC, North America, and Europe.

APP IN NUMBERS

Senseforth.ai's Conversational AI Platform handles millions of conversations daily with an accuracy of over **96%**.

The app supports **two** Indian languages and is working to introduce **eight** more regional languages.

Millions of citizens in both Hindi and English ask over **one million** questions, either spoken or by text.

The See Suite

Creating risk-averse road maps for meaningful sustainability impact.

Rise and still shine

Ram Charan provides innovative leadership insights on rising inflation.

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